

.050" IDC CONNECTORS

DUAL ROW SOCKETS & TRANSITION PLUGS

HFCS & HFDP SERIES

INTRODUCTION:

Adam Tech .050" IDC Sockets and Transition Plugs are low profile, precision designed flat cable connectors that feature either .050" x .100" centerlines or .050" x .050" centerlines. These series quickly and easily mass terminate flat cable in one simple step. Our superior contact design provides a smooth, high pressure wiping action to ensure excellent continuity. They are used with a single layer of .025" flat cable. Their small size, light weight and high density make them ideal for compact and limited space applications.

FEATURES:

.050" x .050" or .050" x .100" Low Profile and High Density Uses Single layer .025" Flat Cable Quickly and easily mass terminates standard Flat Cable Smooth High Pressure Wiping Contacts

MATING CONNECTORS:

Adam Tech .050" HBHR series box headers, latch headers or HPH2 series pin headers

SPECIFICATIONS:

Material:

Insulator: PBT, glass reinforced, rated UL94V-0

Insulator Color: Black Contacts: Phosphor Bronze

Contact Plating:

Tin over copper underplate overall

Electrical:

Operating voltage: 250V AC max. Current rating: 1 Amp max.

Contact resistance: 20 m Ω max. Initial Insulation resistance: 5000 M Ω min.

Dielectric withstanding voltage: 1000V AC for 1 minute

Mechanical:

Insertion force: 0.312 lbs per contact max. Withdrawal force: 0.094 lbs per contact min. Recommended wire size: 28 Awg stranded Cable retention: 22 lbs. min axial force per inch.

Mating durability: 500 cycles min.

Temperature Rating:

Operating temperature: -40°C to +105°C

PACKAGING:

Anti-ESD plastic trays

SAFETY AGENCY APPROVALS:

UL Recognized & CSA Certified, File no. E224053







ORDERING INFORMATION

50





SG = Selective

gold plating

in contact

plating in

area

T = Tin plated

(HFDP &

FDH only)

area, nickel

termination

PLATING

SERIES INDICATOR

HFCS = Low profile .050" x .100" IDC Socket for single

Socket for single layer .025"
Flat Cable

HFCS-A = Low profile .050" x .050" IDC Socket for single

> layer .025" Flat Cable

 $\mathbf{HFTR} = .050$ " Transition

plug

HFDP = .050" Paddleboard Connector for single layer .025"

Transition plug

Flat Cable **FDH** = 4 Row

POSITIONS

HFCS: 10, 20, 30, 40, 50, 60, 70, 80, 90, 100

HFCS-A: 10, 20, 26, 34, 40, 50

HFDP: 30, 50, 68, 72, 80, 100

HFTR: 10, 12, 14, 16, 20, 22, 26, 30,

34, 40, 44, 50

FDH: 10, 14, 16, 20, 26, 34,

40, 50, 60

OPTIONS

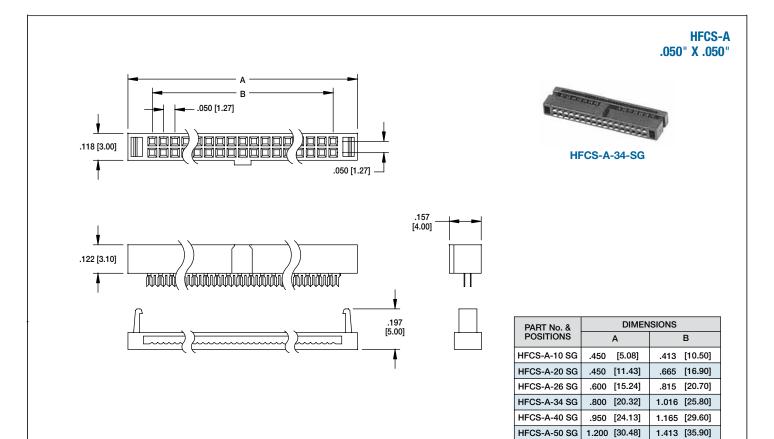
Add designator(s) to end of part number $\mathbf{N} = \text{No polarization bump (HFCS series)}$



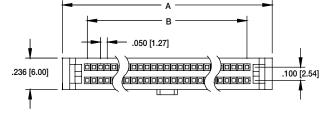
.050" IDC SOCKET

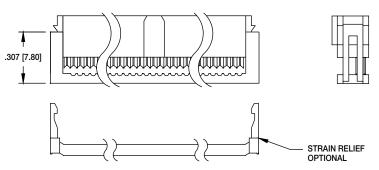
DUAL ROW FLAT CABLE SOCKETS

HFCS SERIES











HFCS-40-SG

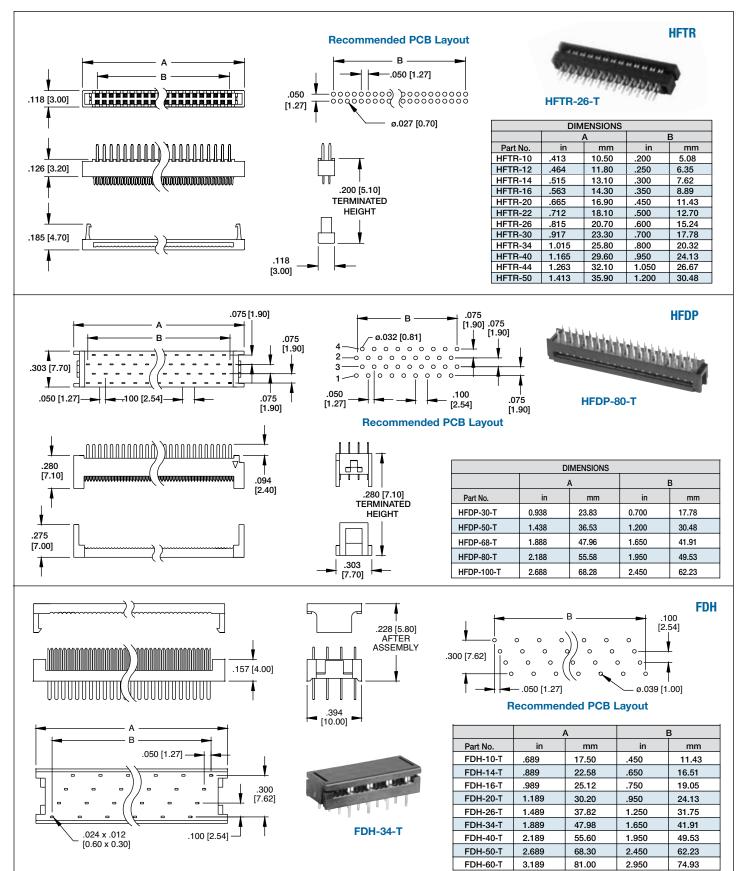
PART No. &	Dimensions							
POSITIONS	А	В						
HFCS-10 SG	0.437 [5.08]	0.200 [11.10]						
HFCS-20 SG	0.687 [11.43]	0.450 [17.45]						
HFCS-30 SG	0.937 [17.78]	0.700 [23.80]						
HFCS-40 SG	1.187 [24.13]	0.950 [30.15]						
HFCS-50 SG	1.437 [30.48]	1.200 [36.50]						
HFCS-60 SG	1.687 [36.83]	1.450 [42.85]						
HFCS-70 SG	1.937 [43.18]	1.700 [49.20]						
HFCS-80 SG	2.187 [49.53]	1.950 [55.55]						
HFCS-90 SG	2.437 [55.88]	2.200 [61.90]						
HFCS-100 SG	2.687 [62.23]	2.450 [68.25]						



.050" IDC CONNECTORS

FLAT CABLE PLUGS







ADVANCED INTERCONNECT PRODUCTS AND SYSTEMS

INTRODUCTION:

Adam Tech 2FCS Series 2.00mm IDC Sockets are low profile, precision designed flat cable sockets that feature 2.00mm pin to pin and row to row centerlines. These sockets quickly and easily mass terminate flat cable in one simple step. Their versatility allows them to mate with a multitude of 2.00mm pin headers. Our superior selectively gold plated contact design provides a smooth, high pressure wiping action to ensure excellent continuity. They are used with a single layer of 1.00mm flat cable. Their small size, light weight and high density make them ideal for compact and limited space applications.

FEATURES:

Low Profile and High Density
Uses Single layer 1.00mm Flat Cable
Quickly and easily mass terminates standard Flat Cable

MATING CONNECTORS:

Adam Tech 2.0mm 2BHR series box headers, 2MHR latch headers and 2PH series pin headers

SPECIFICATIONS:

Material

Insulator: PBT, glass reinforced, rated UL94V-0

Insulator Color: Black Contacts: Phosphor Bronze

Contact Plating:

Gold flash (30 μ in optional) over nickel underplate on contact area, tin over copper underplate on IDC area

Electrical:

Operating voltage: 250V AC max. Current rating: 1 Amp max.

Contact resistance: 20 m Ω max. initial Insulation resistance: 3000 M Ω min.

Dielectric withstanding voltage: 500V AC for 1 minute

Mechanical:

Insertion force: 0.661 lbs per contact max. Withdrawal force: 0.044 lbs per contact min. Recommended wire size: 30 - 28 Awg stranded Cable retention: 24 lbs. min axial force per inch.

Mating durability: 500 cycles min.

Temperature Rating:

Operating temperature: -40°C to +105°C

PACKAGING:

Anti-ESD plastic trays

SAFETY AGENCY APPROVALS:

UL Recognized & CSA Certified, File no. E224053



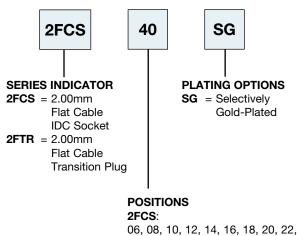


2.00mm IDC SOCKET & TRANSITION PLUG

.079" [2.00 X 2.00] CENTERLINE 2FCS & 2FTR SERIES



ORDERING INFORMATION



06, 08, 10, 12, 14, 16, 18, 20, 22, 24, 26, 34, 36, 40, 44, 50, 60, 68 **2FTR**:

08, 10, 12, 14, 16, 20, 22, 24, 26, 30, 34, 40, 44, 50, 68

NOTE:

Mating Box Headers for 2FCS series located on page 302-303

OPTIONS:

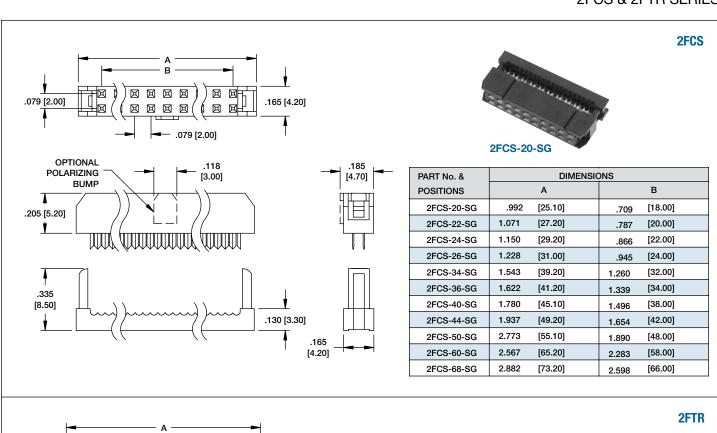
Add designator(s) to end of part number $30 = 30 \mu$ in gold plating in contact area

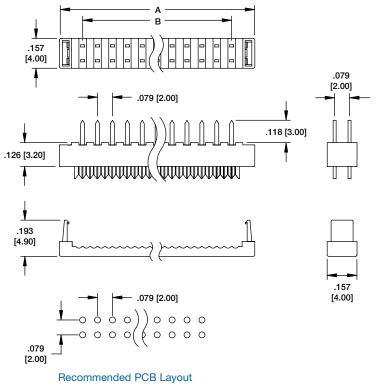
PB = Polarizing bump



2.00mm IDC SOCKET & TRANSITION PLUG

.079" [2.00 X 2.00] CENTERLINE 2FCS & 2FTR SERIES







PART No. &	DIMENSIONS					
POSITIONS	A	В				
2FTR-08-T	.480 [12.20]	.236 [6.00]				
2FTR-10-T	.559 [14.20]	.315 [8.00]				
2FTR-12-T	.637 [16.20]	.3937 [10.00]				
2FTR-14-T	.716 [18.20]	.472 [12.00]				
2FTR-16-T	.795 [20.20]	.551 [14.00]				
2FTR-20-T	.952 [24.20]	.629 [16.00]				
2FTR-22-T	1.031 [26.20]	.708 [18.00]				
2FTR-24-T	1.110 [28.20]	.866 [22.00]				
2FTR-26-T	1.189 [30.20]	.945 [24.00]				
2FTR-34-T	1.503 [38.20]	1.260 [32.00]				
2FTR-40-T	1.740 [44.20]	1.496 [38.00]				
2FTR-44-T	1.897 [48.20]	1.654 [42.00]				
2FTR-50-T	2.133 [54.20]	1.890 [48.00]				
2FTR-68-T	2.842 [72.20]	2.598 [66.00]				



.100" IDC SOCKET

.100" X .100" [2.54 X 2.54] CENTERLINE **FCS SERIES**

INTRODUCTION:

Adam Tech FCS Series .100" IDC Sockets are extremely popular, low profile, precision designed flat cable sockets that feature .100" pin to pin and row to row centerlines. These sockets quickly and easily mass terminate flat cable in one simple step. Their versatility allows them to mate with a multitude of .025" sq. post pin headers. Our superior selectively gold plated contact design provides a smooth high pressure wiping action to ensure excellent continuity. They are used with a single layer of .050" flat cable. Their small size, light weight, low cost and high density make them ideal for use in many applications.

FEATURES:

Choice of Single or Dual beam contact design Low Profile and High Density Uses Single layer .050" standard Flat Cable Quickly and easily mass terminates Flat Cable Smooth High Pressure Wiping Contacts

MATING CONNECTORS:

Adam Tech .100" BHR series box headers and PH2 series pin headers

SPECIFICATIONS:

Material:

Insulator: PBT, glass reinforced, rated UL94V-0

Insulator Color: Black Contacts: Phosphor Bronze

Contact Plating:

Gold flash (30 μ in optional) over nickel underplate on contact area, tin over copper underplate on IDC area

Electrical:

Operating voltage: 250V AC max. Current rating: 1 Amp max.

Contact resistance: 30 mΩ max. initial Insulation resistance: 1000 M Ω min.

Dielectric withstanding voltage: 500V AC for 1 minute

Mechanical:

Insertion force: FCS-D2: 0.5 lbs per contact max. Withdrawal force: FCS-D2: 0.094 lbs per contact min.

Recommended wire size: 28 Awg stranded Cable retention: 28 lbs. min axial force per inch.

Mating durability: 500 cycles min.

Temperature Rating:

Operating temperature: -40°C to +105°C

PACKAGING:

Anti-ESD plastic trays

SAFETY AGENCY APPROVALS:

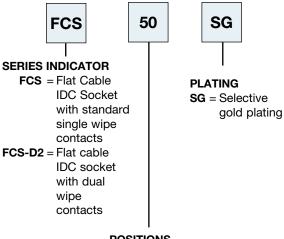
UL Recognized & CSA Certified, File no. E224053







ORDERING INFORMATION



POSITIONS

06, 08, 10, 12, 14, 16, 20, 24, 26, 30, 34, 40,44, 50, 56, 60, 62, 64

> Note: Mating box headers for this series

> > located on page 319-325

FSR-XX (XX = No. of Positions)

PULL TABS:

PT-XX (No. of positions)

KEYING PLUGS:

STRAIN RELIEF:

FCS-K (Key plugs can also be molded into connector, consult factory)

OPTIONS:

Add designator(s) to end of part number

30 = 30 μ in gold in contact area

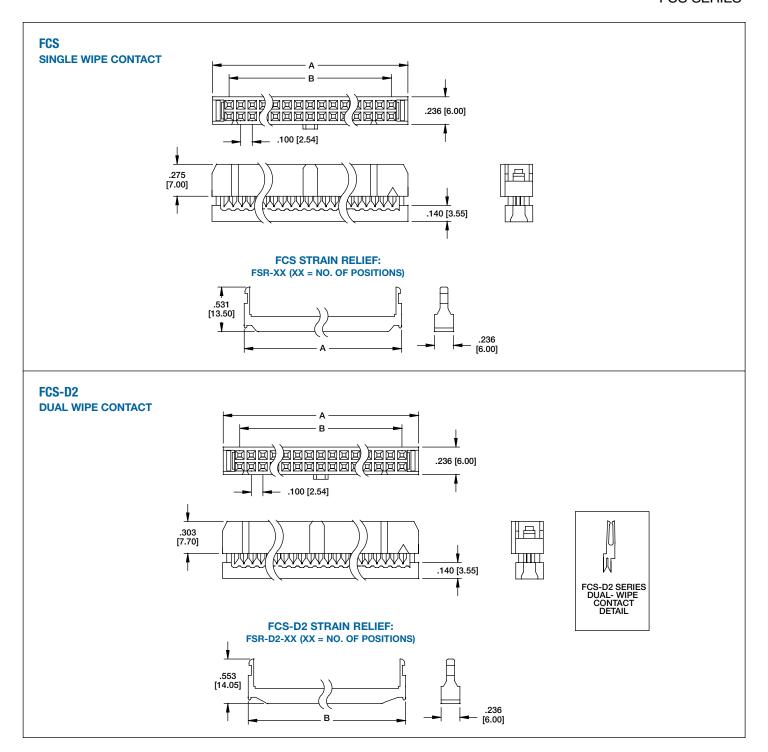
GY = Gray color insulator

N = No polarization bump



.100" IDC SOCKET

.100" X .100" [2.54 X 2.54] CENTERLINE FCS SERIES



DIMENSIONS																		
POSITIONS	6	8	10	12	14	16	20	24	26	30	34	40	44	50	56	60	62	64
В	0.200 [5.08]	0.300 [7.62]		0.500 [12.70]	0.600 [15.24]	0.700 [17.78]	0.900 [22.86]		1.200 [30.48]	1.400 [35.56]	1.600 [40.64]	1.900 [48.26]	2.100 [53.34]	2.400 [60.96]	2.700 [68.58]	2.900 [73.66]	3.000 [76.20]	3.100 [78.74]
А	0.480 [12.19]	0.580 [14.73]	0.680 [17.27]	0.780 [19.81]	0.880 [22.35]	0.980 [24.89]	1.180 [29.97]	1.380 [35.05]	1.480 [37.59]	1.680 [42.67]	1.880 [47.75]	2.180 [55.37]	2.380 [60.45]	2.680 [68.07]	2.980 [75.69]	3.180 [80.77]	3.280 [83.31]	3.380 [85.85]



.100" IDC CARD EDGE

.100" [2.54] CENTERLINE

INTRODUCTION:

Adam Tech FCE Series IDC Card Edge Connectors are designed to quickly and easily mass terminate .050" flat cable and mate directly with the plated fingers of a PCB as a card edge connector. Our superior designed crimp cap features guides to reduce occurrence of mis-mating and our specially engineered contacts provide strong wiping action and high retention to the PCB.

FEATURES

Available with or without mounting ears Special "easy fit" cap reduces mis-mating High Retention to PCB Selectively Gold plated Bifurcated contacts

MATING OPTIONS:

Printed circuit boards with a thickness of .058" to .070"

SPECIFICATIONS:

Material:

Insulator: PBT, glass reinforced, rated UL94V-0 Insulator Color: Black, (Gray optional)

Cantactes Discorder Drawn

Contacts: Phosphor Bronze

Contact Plating:

Gold flash (30 μ in optional) over nickel underplate on contact area, tin over copper underplate on IDC area

Electrical:

Operating voltage: 250V AC max. Current rating: 1 Amp max.

Contact resistance: 30 m Ω max. initial Insulation resistance: 1000 M Ω min.

Dielectric withstanding voltage: 500V AC for 1 minute

Mechanical:

PCB Insertion force: 0.406 lbs per contact max.

With .062 thick board Withdrawal force: 0.312 lbs per contact min.

With .062 thick board Recommended wire size: 28 Awg stranded Cable retention: 28 lbs. min axial force per inch.

Mating durability: 500 cycles min.

Temperature Rating:

Operating temperature: -40°C to +105°C

PACKAGING:

Anti-ESD plastic trays

SAFETY AGENCY APPROVALS:

UL Recognized & CSA Certified, File no. E224053

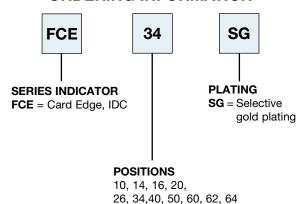








ORDERING INFORMATION



STRAIN RELIEF:

FCR - XX (XX= No. of Positions)

KEYING PLUGS:

FCE-K (Key plugs can also be molded into connector, consult factory)

OPTIONS:

Add designator(s) to end of part number

30 = 30 μ in gold plating in contact area

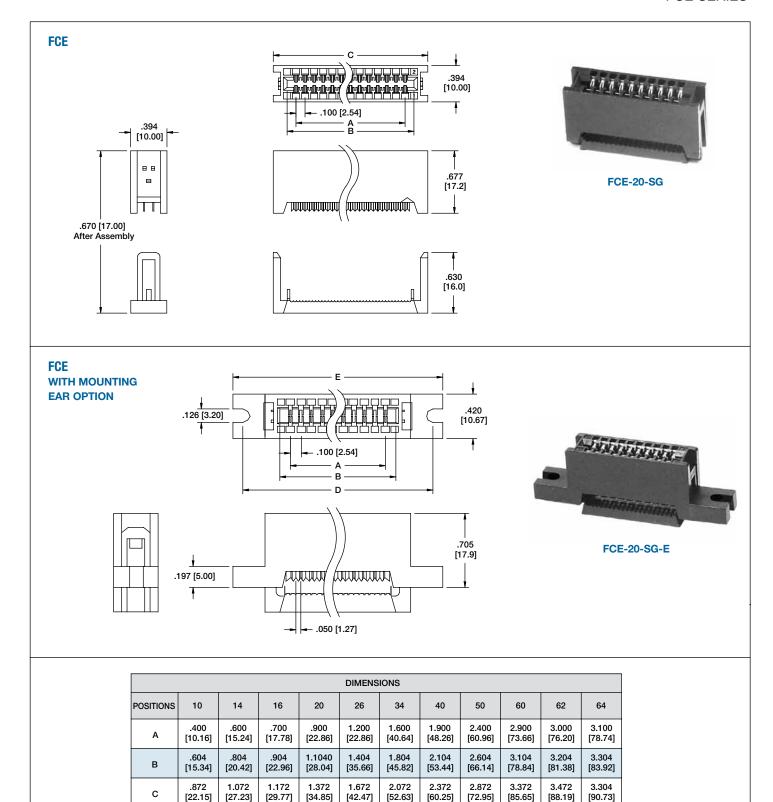
GY = Gray color insulator

E = Mounting ears with slotted mounting holes



.100" IDC CARD EDGE

.100" [2.54] CENTERLINE FCE SERIES



2.100

[53.34]

2.300

[58.42]

2.500

[63.50]

2.700

[68.58]

2.800

[71.12]

3.000

[76.20]

3.300

[83.82]

3.500

[88.90]

3.800

[96.52]

4.000

[101.60]

N/A

N/A

4.000

[101.60]

4.200

[106.68]

1.300

[33.02]

1.500

[38.10]

D

Ε

1.500

[38.10]

1.700

[43.18]

1.600

[40.64]

1.800

[45.72]

1.800

[45.72]

2.000

[50.80]



.100" IDC BOX HEADER

.100" X .100" [2.54 X 2.54] CENTERLINE FCP SERIES

INTRODUCTION:

Adam Tech FCP Series IDC Box Headers are designed to quickly and easily mass terminate to .050" flat cable. The IDC termination is converted to a Shrouded Box Header output with a polarizing slot that mates with standard IDC sockets. This connector is ideal for splicing and making "T" taps to a cable bus. Adam Tech's sturdy design features solid, selectively gold plated .025"sq. copper alloy posts.

FEATURES:

IDC Flat Cable to Shrouded Box Header Mates with standard IDC sockets Ideal for splicing and "T" taps to cable bus Solid selectively gold plated contacts

MATING CONNECTORS:

Mates with Adam Tech FCS Series .100" [2.54mm] dual row IDC sockets

SPECIFICATIONS:

Material:

Insulator: PBT, rated UL94V-0 Insulator Color: Gray

Contacts: Brass

Contact Plating:

Gold flash (30 μ in optional) over nickel underplate on contact area, tin over copper underplate on IDC area

Electrical:

Operating voltage: 250V AC max. Current rating: 1 Amp max

Contact resistance: 30 m Ω max. initial Insulation resistance: 5000 M Ω min.

Dielectric withstanding voltage: 1000V AC for 1 minute

Mechanical:

Insertion force: 0.5 lbs per circuit max. Withdrawal force: 0.094 lbs per circuit min Mating durability: 500 cycles min.

Recommended cable size: 28 Awg stranded

Temperature Rating:

Operating temperature: -40°C to +105°C

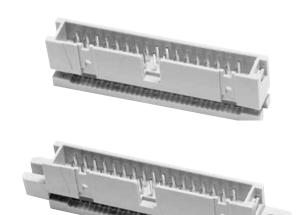
PACKAGING:

Anti-ESD plastic trays

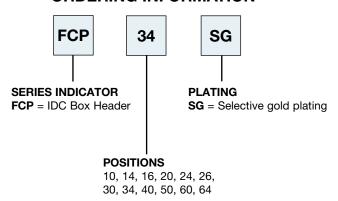
SAFETY AGENCY APPROVALS:

UL Recognized & CSA Certified, File no. E224053





ORDERING INFORMATION



OPTIONS:

Add designator(s) to end of part number

E = Mounting Ears

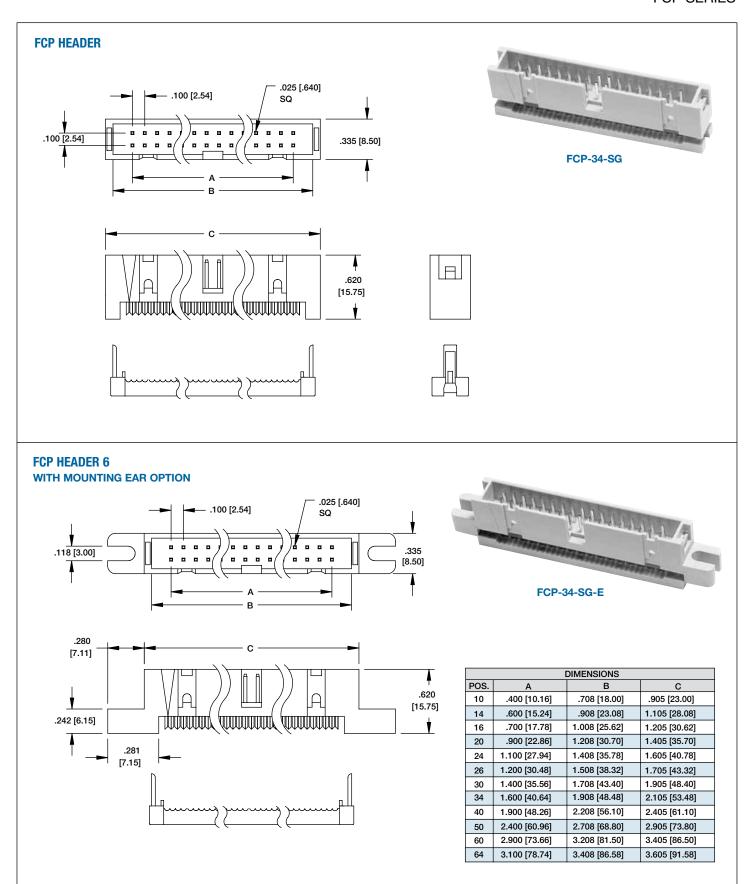
30 = 30 μ in gold plating in contact area

BK= Black color insulator



.100" IDC BOX HEADER

.100" X .100" [2.54 X 2.54] CENTERLINE FCP SERIES





.100" IDC LATCH HEADER

.100" X .100" [2.54 X 2.54] MHF SERIES

INTRODUCTION:

Adam Tech MHF Series IDC Latch Headers are designed to quickly and easily mass terminate to .050" flat cable. The IDC termination is converted to a Shrouded Box Header with ejector/latches and a polarizing slot that mates with standard IDC sockets. This connector is ideal for splicing and making "T" taps to a cable bus. Adam Tech's sturdy design features solid, selectively gold plated .025"sq. copper alloy posts.

FEATURES:

Latches for secure attachment
Latch ejection feature makes socket removal easy
IDC Cable to Shrouded Box Header
Mates with standard IDC sockets
Ideal for splicing and "T" taps to cable bus
Solid selectively gold plated contacts

MATING CONNECTORS:

Mates with Adam Tech FCS Series .100" (2.54mm) dual row IDC sockets

SPECIFICATIONS:

Material:

Insulator: PBT, rated UL94V-0 Insulator Color: Gray

Contacts: Brass Contact Plating:

Gold flash (30 μ in optional) over nickel on contact area, Tin over copper underplate on IDC area

Electrical:

Operating voltage: 250V AC max. Current rating: 1 Amp max

Contact resistance: 20 m Ω max. initial Insulation resistance: 5000 M Ω min.

Dielectric withstanding voltage: 1000V AC for 1 minute

Mechanical:

Insertion force: 0.5 lbs per circuit max. Withdrawal force: 0.094 lbs per circuit min Mating durability: 500 Cycles min.

Recommended cable size: 28 Awg stranded

Temperature Rating:

Operating temperature: -40°C to +105°C

PACKAGING:

Anti-ESD plastic trays

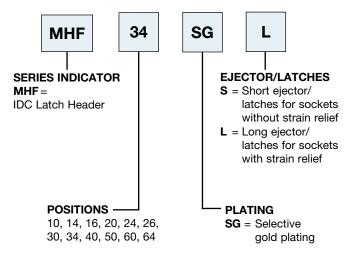
SAFETY AGENCY APPROVALS:

UL Recognized & CSA Certified, File no. E224053





ORDERING INFORMATION



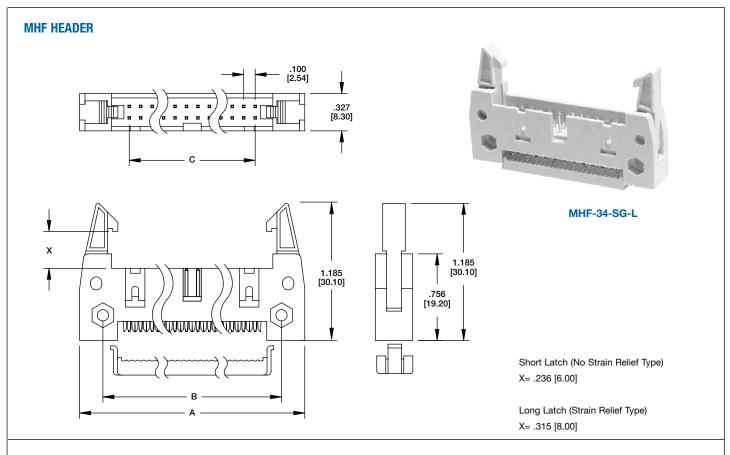
OPTIONS:

Add designator(s) to end of part number **E** = Mounting ears



.100" IDC LATCH HEADER

.100" X .100" [2.54 X 2.54] MHF SERIES

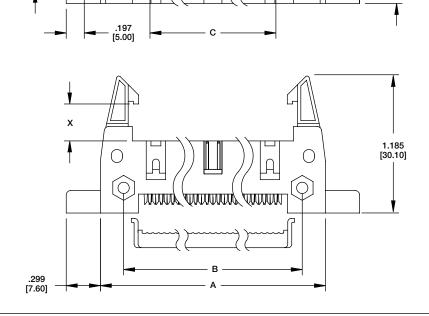


.100 [2.54]

> .327 [8.30]

MHF HEADER WITH MOUNTING EAR OPTION

.118 [3.00]



PART NO. &	DIMENSIONS								
POSITIONS	Α	В	С						
MHF-10	1.266 [32.17]	.860 [21.85]	.400 [10.16]						
MHF-14	1.466 [37.25]	1.060 [26.93]	.600 [15.24]						
MHF-16	1.566 [39.79]	1.160 [29.47]	.700 [17.78]						
MHF-20	1.766 [44.87]	1.360 [34.55]	.900 [22.86]						
MHF-24	1.966 [49.95]	1.560 [39.63]	1.100 [27.94]						
MHF-26	2.066 [52.49]	1.660 [42.17]	1.200 [30.48]						
MHF-30	2.266 [57.57]	1.860 [47.25]	1.400 [35.56]						
MHF-34	2.466 [62.65]	2.060 [52.33]	1.600 [40.64]						
MHF-40	2.766 [70.27]	2.360 [59.95]	1.900 [48.26]						
MHF-50	3.266 [82.97]	2.860 [72.65]	2.400 [60.96]						
MHF-60	3.766 [95.67]	3.360 [85.34]	2.900 [73.66]						
MHF-64	3.966 [100.75]	3.560 [90.43]	3.100 [78.74]						



ADVANCED INTERCONNECT PRODUCTS AND SYSTEMS

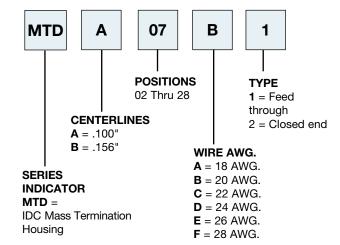
MASS CONNECT HOUSING

HOUSING WITH IDC CONTACTS
.100" & .156" CENTERLINE
MTD SERIES

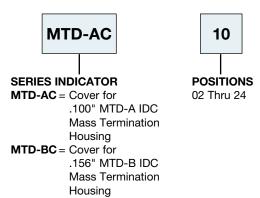




ORDERING INFORMATION CONNECTOR



ORDERING INFORMATION COVER



INTRODUCTION:

Adam Tech's MTD Series .100" & .156" Housings with IDC contacts are designed to quickly and easily mass terminate discrete wires or pre-notched flat cable. Our stamped contacts are designed to feature a precision, gas tight IDC connection at the wire end and a high pressure, smooth wiping action connection on the mating connector end. Both are available with optional cover in feed through or closed end styles.

FEATURES:

Easily mass terminates discrete wire and pre-notched flat cable Housings have pre-inserted IDC contacts
High performance Gas tight IDC connection
Optional Feed through or Closed end cover

SPECIFICATIONS:

Material:

Insulator: Nylon 66, rated UL94V-2

Insulator Color: Natural

Contacts: Phosphor bronze and Brass

Contact Plating:

Tin over copper underplate overall

Electrical:

Operation voltage: 250V AC max.

Current rating:

.100" centers: 4. Amp max. .156" centers: 6 Amp max.

Insulation resistance: 1000 $M\Omega$ min.

Dielectric withstanding voltage: 1000V AC for 1 minute

Mechanical:

Mating force:

.100" & .156" Center: 1.3 lbs max

Unmating force:

.100" Center: 0.5 lbs min .156" Center: 1.3 lbs min

.100" Centers: Wire size: 28 Awg to 22 Awg .156" Centers: Wire size: 26 Awg to 18 Awg

Temperature Rating:

Operating temperature: -40°C to +105°C

PACKAGING:

Anti-ESD plastic bags

APPROVALS AND CERTIFICATIONS:

UL Recognized & CSA Certified, File no. E224053

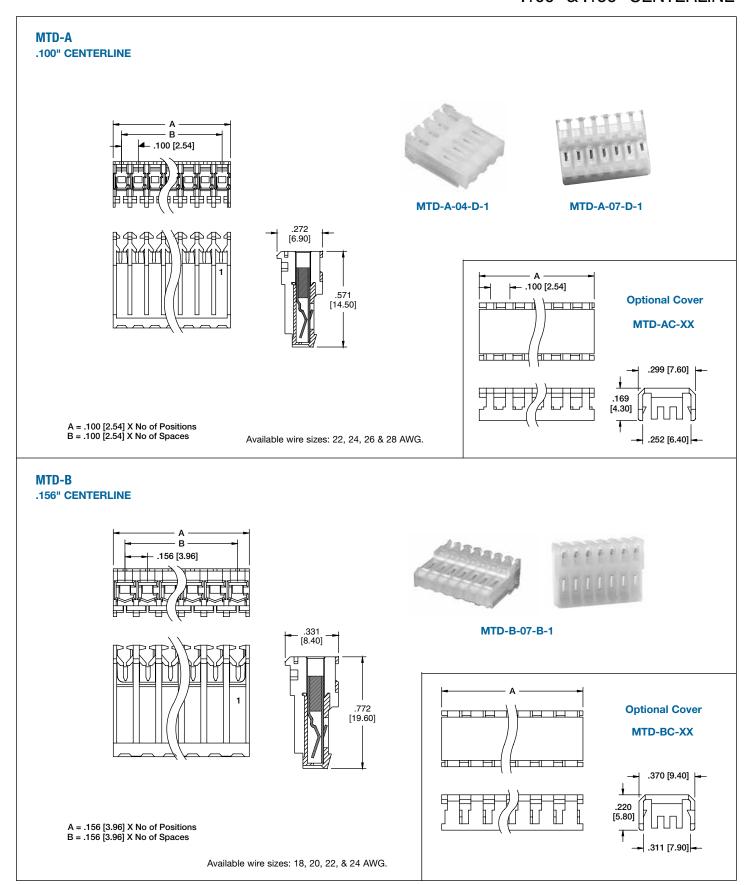






MASS CONNECT HOUSING

HOUSING WITH IDC CONTACTS .100" & .156" CENTERLINE





IDC DIP & TRANSITION PLUGS

.100" [2.54] CENTERLINE FTR & FDP SERIES

INTRODUCTION:

Adam Tech's Flat Cable DIP & Transition plugs are a one piece connector system that quickly and easily mass terminates flat cable then mounts directly to the PCB or PCB socket. These connectors are ideal for interconnecting PCB's in a permanent flat cable transition or satisfying disconnect applications. Our low profile design allows an increased board to board stacking density.

FEATURES:

Available in 8 - 64 positions

Eliminates need for two piece header & Socket set Fast easy mass termination without stripping cable

Heavy duty Tin plated contacts

Low Profile, high density board to board stacking Plugs into IC Socket or solders directly to PCB

SPECIFICATIONS:

Material:

Insulator: PBT, glass reinforeced, rated UL94V-0 Optional Hi-Temp insulator: Nylon 6T, rated UL94V-0

Insulator Color: Black (Gray optional)

Contacts: Brass Contact Plating:

G = Gold over nickel underplate on contact area, Tin over copper

underplate on IDC area.

T = Tin over copper underplate overall

Electrical:

Operating voltage: 250V AC max. Current rating: 3 Amp max

Contact resistance: 20 m Ω max. initial Insulation resistance: 5000 M Ω min.

Dielectric withstanding voltage: 1000V AC for 1 minute

Mechanical:

Recommended cable size: 28 Awg stranded

Temperature Rating:

Operating temperature: -40°C to +105°C

PACKAGING:

Anti-ESD plastic trays

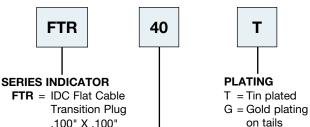
SAFETY AGENCY APPROVALS:

UL Recognized & CSA Certified, File no. E224053





ORDERING INFORMATION



.100" X .100" **FDP-3** = IDC Flat Cable

Dip Plug

.100" X .300"

.100" X .600"

FDP-6 = IDC Flat Cable
Dip Plug

POSITIONS

FTR: 08, 10, 14, 16, 20, 24, 26, 28, 30, 34, 40, 50, 60, 64

FDP-3: .300" row spacing

Positions: 08, 10, 14, 16, 18, 20, 24,

26, 28, 34, 40

FDP-6: .600" row spacing

Positions: 24, 26, 28, 32, 34, 36, 40

OPTIONS:

Add designator(s) to end of part number $30 = 30 \mu \text{in gold plating in contact area}$

GY = Gray color insulator

RT = Board retention



IDC DIP & TRANSITION PLUGS

.100" [2.54] CENTERLINE FTR & FDP SERIES

